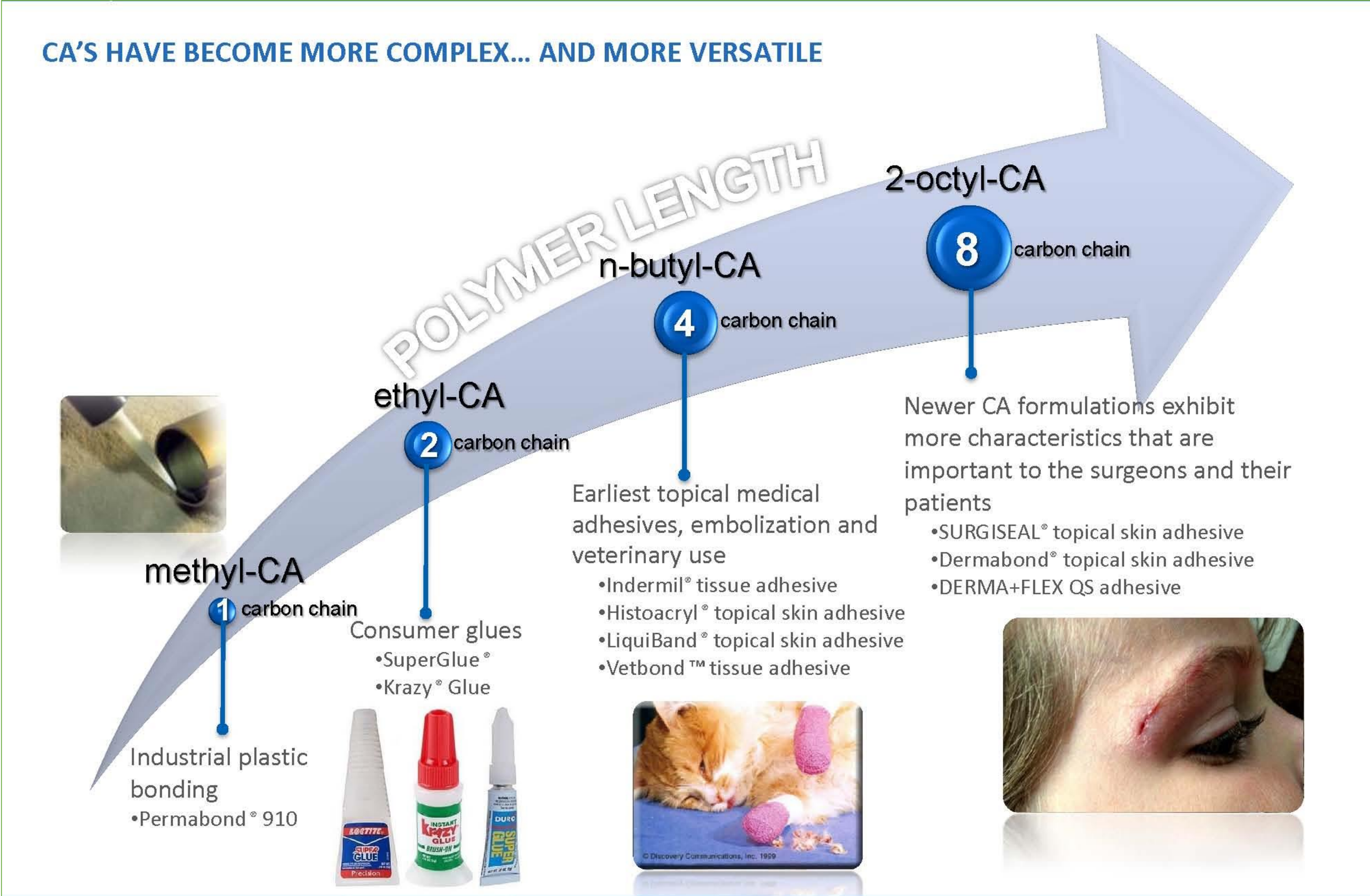


Background

The last 60 years has seen the development of cyanoacrylate adhesive from a purely industrial use to medical and now specifically vascular access use.



Graphic Published with permission from Adhezion Biomedical, LLC

Until recently tissue adhesive licensing and guidance has been limited to its’ use on internal and external tissue primarily in skin closure (Corley et al, 2017).

Some tissue adhesive has now been given European CE mark approval for use with vascular access devices and one example of this is the SecurePortIV (Adhezion Biomedical LLC).

The Venous Access Team at St George’s Hospital in London had been using cyanoacrylate adhesive since first seeing the product at WoCoVA in 2016. There was however a little unease about using a product ‘off license’ and the product that was being used had a tendency to create a hard, crusty deposit around the vascular access device which could, in some cases become uncomfortable for the patient.

When the team became aware of the new SecurePortIV product, it was decided to trial its’ use at St George’s Hospital.

Objective

The objective was to introduce the SecurePortIV product and evaluate its’ performance through staff satisfaction and a case study

Case Study

The patient was a 65 year old woman with a diagnosis of metastatic HER2 positive breast cancer with bone and liver disease. There was a plan to commence a new treatment regime using Paclitaxel which is a highly vesicant intravenous medication (EMC 2020). Due to the risk of severe tissue damage if the drug should extravasate, it is recommended that this medication is delivered via a central venous access device. The patient was booked with the Venous Access Team for a peripherally inserted central catheter (PICC) insertion prior to starting treatment.

Method

Two questionnaires were devised – one for the patient and one for staff.

Patient questionnaire

- Appearance of catheter site after insertion
- Appearance of catheter site 24 hours after insertion
- Comfort of catheter site

Staff questionnaire

- Ease of application
- Appearance of catheter site after insertion
- Ability to manipulate/dress catheter whilst adhesive present

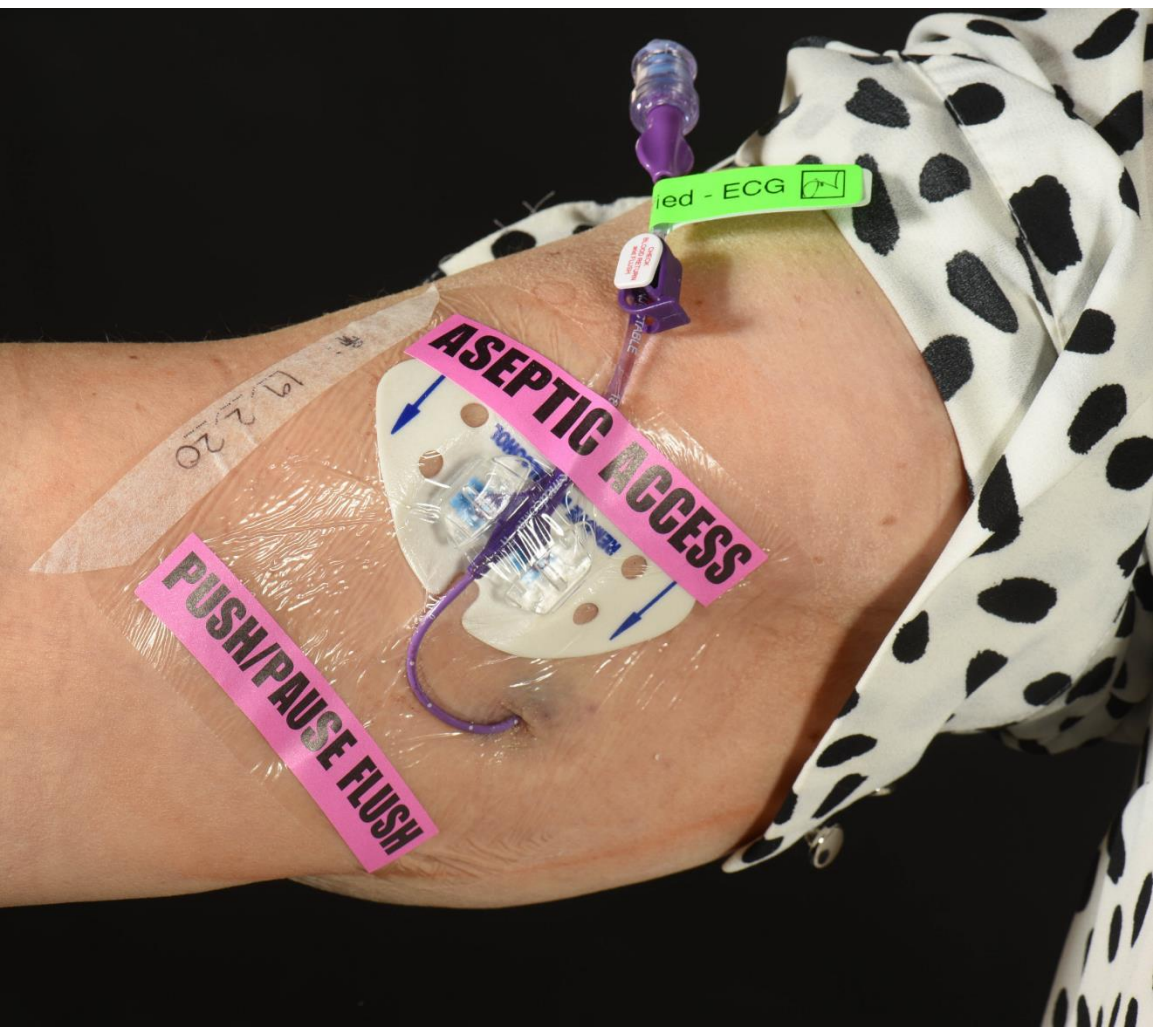
Each was asked to score for each category using a Likert scale with 1 representing poor and 5 representing excellent

References & Bibliography
Corley A, Marsh N, Ullman AJ, Rickard CM. Tissue adhesive for vascular access devices: who, what, where and when? Br J Nurs. 2017;26(19):S4–S17
Electronic Medicines Compendium (emc) 2020 Medicines.org.uk/emc/product/6076/smpc(accessed 12 October 2020)
Nicholson J and Hill J Cyanoacrylate tissue adhesive: a new tool for the vascular access toolbox. Br J Nurs2019; 28(19) S22-S28.

Results

The patient scored each category with a 5 and her comment (related to bruising under the skin) was “I’ve always bled a lot”

The staff n=3 all scored each category with a 5 and comments included “Better than the previous glue...it doesn’t crystallize”, “Runny it takes time to dry” and “Takes a bit longer to dry and not very obvious when it is dry”



Post insertion (hospital photographer)



24 hours post insertion (photograph patient own)

Comment: bruising can be seen at the insertion site on both photographs (more pronounced after 24 hours). At the time of insertion the platelet count was 75 X 10⁹ per litre. Of significance is that, despite a low platelet count and obvious subcutaneous bleeding, there is no bleeding at the catheter insertion site.

Conclusion

SecurePortIV tissue adhesive is a cyanoacrylate tissue adhesive that has been approved for use with vascular access devices and performs well in the vascular access setting. Staff need to be aware that the product needs time to dry once applied.